

A Work Project, presented as part of the requirements for the Award of a Master's degree in Management from the Nova School of Business and Economics.

CONSUMER ENGAGEMENT IN VIRTUAL AND COLLOCATED LIVE MUSIC  
EXPERIENCES: AN EMPIRICAL ANALYSIS

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### **Abstract**

This work focuses on the music festivals and concerts sector, providing an empirical analysis aimed at comparing offline and online live music experiences. It investigates how Pine and Gilmore's experiential dimensions, and the socialization parameter, can influence customer satisfaction, event meaningfulness and willingness to pay in each context. The research method chosen was a between-subjects experiment. The findings showed that customers of virtual concerts are more satisfied with and are willing to pay lower prices for the virtual experience. According to the experiment results, the virtual live music industry still has margin of improvement when considering Entertainment, Esthetics, and Sociality.

**Keywords:** Experience, Virtual, Collocated, Pine and Gilmore, Atasoy and Morewedge, Satisfaction, Meaningfulness, Willingness to pay.

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## 1. Introduction

The Covid-19 pandemic and the consequent restrictions imposed by the majority of the Governments around the world have posed serious challenges to several sectors of the economy. Some of the industries which are most suffering during the pandemic crisis can be identified in the collocated live experience economy, also known as CLX. Namely, events in which both attendees and performers are located in the same area while the performance takes place. For instance, concerts, music festivals, dance performances, dinners at Michelin Star restaurants. The collocated live experience economy includes those sectors in which at least 50% of the revenues are dependent on both the live experience producer and the customer being collocated in the same physical space (Smidt-Jensen, Skytt and Winther, 2009). In order to face the pandemic in a sustainable way and to continue delivering value to their customers, companies were able to rapidly re-adapt their business models to the needs of the new world we are living in. Therefore, since March 2020, innovative solutions in traditional live experience sectors were sought by companies and delivered to customers: «museums organizing virtual exhibition visits, Michelin Star restaurants offering food delivery and musicians live streaming music concerts» (Finch et al., 2020, p. 5-6). How does the switch from offline to online experience affect customer satisfaction, willingness to pay, and event meaningfulness?

This work examines this question within the context of Pine and Gilmore experiential dimensions (1999). The experience economy is a broad concept that was highly examined by Pine and Gilmore (2013). According to the authors, «experiences are memorable events that engage each individual in an inherently personal way» (Pine & Gilmore, 2013, p. 26). In order to become memorable, experiences need to be perceived by customers as authentic, where authenticity means conformation to customers' own self-image: who they are and who they would like to be (Pine and Gilmore, 2013). The conformism to self-image perspective involves

the significance of experiences of individual satisfaction and meaningfulness with a given product or visit (Greater Copenhagen Authority, 2005). Moreover, Pine and Gilmore (2013) agree in saying that nowadays consumers purchase offerings based on how well they conform to their own self-image.

This work focuses its attention on the music festivals and concerts sector, providing an empirical analysis on how the experiential dimensions proposed by Pine and Gilmore in 1999, identified as entertainment, escapism, esthetics, education, and the socialization parameter, that arose by previous studies, are able to influence customers overall satisfaction and the meaningfulness of the experience in the traditional offline music concert and in the newly introduced online one. Consequently, understanding how satisfying and meaningful an experience is contributes to understand:

- whether the virtual experience of music concerts offers a comparative, superior or inferior satisfaction level and meaningfulness perception to consumers compared to the traditional offline one;
- which experiential dimensions (Pine and Gilmore, 1999) the CLX (collocated live experience) and VLX (virtual live experience) music industry could implement in order to reach higher satisfaction and meaningfulness levels and thus to deliver a more engaging experience;

Furthermore, based on the idea that people tend to value digital goods less than physical ones (Atasoy & Morewedge 2018), this work project will contribute to pointing out:

- whether the same trend is followed for experiences, namely whether customers are willing to pay more for offline experiences, and, in particular, music festivals and concerts;
- which of the experiential dimensions should be implemented by companies to enrich the experiences and induce customers to pay higher prices.

## 2. Literature review

### 2.1 Experience Economy

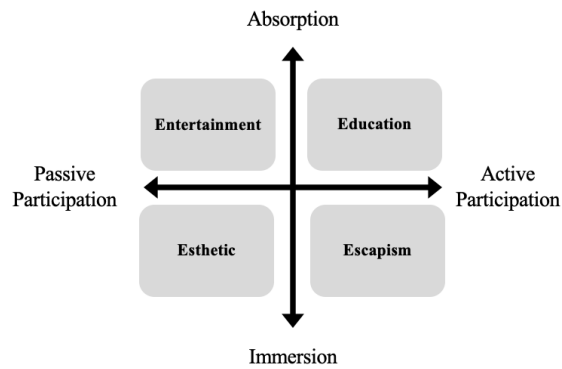
Every economy is defined by what buyers are obtaining from sellers in exchange for money (Pine & Gilmore, 2013). Therefore, the experience economy shifts its attention away from products or the delivery of services to focus on the selling of experiences. The concept of experience has been widely analyzed by many different authors in several contexts. In Pine and Gilmore's conception, «experiences are memorable events that engage each individual in an inherently personal way» (2013, p. 26). The definition of experience proposed by the two authors expresses the width of the concept: experiences have always existed, they were just more recently identified by the economic system. According to the definition above, the intangible value of an experience lays for a long time in the memory of people who have been engaged by it, even if the staging of the experience is over. The long-lasting value given by experiences aligns with the concept of «the Dream Society, where business, communities and people as individuals will thrive on the basis of their stories, not just on data and information» (Jensen, 1999, p.1): the Dream Society is the result of a transformation process that shifts its attention away from a materialistic society to focus on a post-materialistic one, where emotions and feelings have the most significant value (Mehmetoglu & Engen, 2011). Nowadays, human beings need to build their stories through experiences in order to self-define their own selves. The self-image concept, «the way a person feels about his or her personality, achievements and value to society» (Cambridge Dictionary, 2020), plays a pivotal role in the experiences' selection process. In recent times, customers are likely to purchase offerings based on the perceived conformance to self-image (Pine & Gilmore, 2013). The higher the conformation to self-image level, the more the experience is perceived to be real and authentic, and higher competitive advantage is earned (Idem, 2013). Thus, a company needs to design a customized

experience that is satisfying and meaningful, that is to say, perceived by customers as authentic, representative of their own self-image and memorable.

Self-image is directly linked to the customization concept: customization is what enables goods to differ from services and services from experiences (Pine & Gilmore, 2011, p.111). In particular, mass customization is the main path to be followed by companies to make their experiences perceived as authentic by final customers and, hence, as representative of their self-image. As a result of the tailoring process, companies are able to deliver to their customers offerings that are more aligned with their wants and needs and thus more relevant to them (Pine & Gilmore, 2013). Moreover, customization can deeply engage individuals in the creation of a performance that is produced just for them and can become easily memorable. Therefore, a high level of mass customization of an experience leads to the co-creation of the offering: the events in which the co-creation process happens are known in the literature as second-generation experiences (Boswijk et. al, 2007). Joe Pine, in 1993, stated: «Mass Customization can be achieved only through the committed involvement of employees, of suppliers, of distributors and retailers, and through the involvement of end customers themselves both in the identification and fulfilment of their wants and needs» (Pine, 1993, p.109–10). Furthermore, according to Pine and Gilmore (2013), all the experiences necessarily need to be co-created because they always take place inside the customer in reaction to what is staged by the company.

## 2.2 Pine & Gilmore's 4Es Model

Due to the needs of companies to reach economic sustainability, as aforementioned, particular attention must be given to the experience design and architecture. Precisely as with products and services, experiences have distinct attributes and nature and present their own design challenge (Pine & Gilmore, 1998). Pine and Gilmore in 1999 thought of experiences in two dimensions: *customer participation* and *connection* (figure 1).



**Figure 1:** The four realms of experience (Pine & Gilmore, 1999, p.30)

Customer participation varies from passive participation, where individuals have no role in the staging of the experience, for instance attending a theatrical performance, to active participation, in which customers play active roles in the performance development, for example, skiers (Pine & Gilmore, 1999).

Connection outlines the customer relationship to the environment and surroundings (Pine & Gilmore, 1999). On the top side of the axis lies absorption, while on the bottom side, immersion. Absorption indicates that the audience has a certain distance from the stage where the experience is taking place, as in watching a movie at home. In contrast, immersion suggests that the customer gets “drawn” in the experience, for example attending a sport competition on-site (Mehmetoglu & Engen, 2011).

Experiences can be categorized on the basis of where they fall along the spectra of the two dimensions, namely customer participation and connection. The diagram that indicates how the experiences can be classified is called “The Four Realms of an Experience” (figure 1). First, those experiences in which attendees tend to participate more passively are recognized as *entertainment* experiences; the connection to the environment, in this case, tends to be more absorption than immersion. Within this category, we recall life moments such as watching television or attending to a concert. Second, those events known as *educational* experiences



tend to take into account a higher participation and therefore an active one, while the absorption level still tends to be high. In this category, we can recognize experiences such as ski lessons: students are actively participating to the event but are still outside the event. The third category suggests *escapist* experiences where the highest levels of both customer immersion and connection to the environment are involved. Acting a play or descending the Grand Canyon are perfect events describing what an escapist experience is. Last, *esthetic* experiences involve a high level of immersion and a low level of customer participation. In this kind of experience, participants are very immersed in the environment, yet they do not have any effect on it. A good example representing this type of experience is a visitor of the Grand Canyon for its rim (Pine & Gilmore, 1999).

Experiences are not usually related to only one of the four dimensions: even if one dimension is emphasized, the experience will often have elements of all four dimensions (Mehmetoglu & Engen, 2011). Pine and Gilmore (1999) describe as “sweet spot” the situation in which a consumer perceives he is feeling, learning and becoming immersed by just being there. In other words, a “sweet spot” happens when all the senses become involved by the experience in act. When this kind of perception is achieved, the experience becomes meaningful and extraordinary to the consumer (Pine & Gilmore, 1999; Mossberg, 2003; Boswijk et al., 2007). Therefore, the framework proposed by Pine and Gilmore (1999) offers a valuable starting point in the design and customization road to understanding which of the dimensions need to be emphasized to draw more customers to the “sweet spot” and enable the experience to be perceived as satisfying, memorable and meaningful.

### 2.3 Music Festivals and Concerts during the Covid-19 pandemic

Music Festivals and concerts are considered to be part of the collocated live experience industry (CLX). The CLX includes those activities in which at least 50% of revenues is dependent on both the live experience producer and their customer being collocated in the same area (Finch

et al., 2020). With the Covid-19 pandemic spreading around the world and the consequent mitigation measures, such as social distancing, imposed by the governments, all the unessential activities were forced to close. As such, due to its nature, the CLX industry was one of the first to shut its doors (Messick, 2020). The music industry companies found themselves to face a severe challenge: how to survive for several months or even a few years without having the possibility of organizing collocated concerts. Since digital offerings play a critical role in our modern, increasingly liquid and experiential society the idea of switching their offerings from collocated concerts (CLX) to streaming virtual concerts (VLX) was easy to think but harder to implement (Bardhi, Eckhardt, & Arnould 2012; Gilovich, Kumar, & Jampol, 2015). Virtual live streaming concerts are experiences that significantly differ from collocated ones from an organizational perspective. However, since LX producers are engaging customers and other stakeholders in the co-creation of the experiences, access to external resources is enabled (Finch et al., 2020). Therefore, an increased capacity to accelerate development, reduce costs, and increase and diversify the people engaged in the design, development and delivery of the innovation are achieved (Grimpe & Hussinger, 2014). Thus, despite the initial difficulties due to Covid-19's uncertainties, several companies were able to implement innovations in their business models by virtually streaming concerts.

In addition, during the pandemic, the music industry maintained the same goal as before: to provide consumers offerings, experiences, able to develop a competitive advantage and maximize revenues (Finch et al., 2020). As mentioned in the previous section, in order to be able to charge a price, and consequently to maximize revenues, the design of the experience needs to be aligned with the needs and wants of the customer base. However, it is crucial to take into consideration that, according to a relevant study conducted by Atasoy and Morewedge, consumers tend to value physical goods more than digital goods (2018). That is to say that they are willing to pay more for a physical good than for its digital counterpart.

An interesting case study about virtual concerts in terms of offerings design and customer satisfaction is represented by StageIt. StageIt, a platform launched in 2009 in California, is aimed at artists who are willing to monetize live-streamed concerts (StageIt, 2020). On the platform, artists hold from 30 to 60 minutes concerts, and they earn 80% of the revenues, coming from pre-purchased tickets or tips. StageIt, in its first ten years of activity did not reach a significant success: «the concept was innovative, presenting an intimate medium for fans and a lucrative one for artists; however, it took a pandemic for both groups to realize this» (Finch et al., 2020, p.19). In fact, in the first two weeks of the pandemic, StageIt doubled its 2019 profits: up to date, the most profitable concert was worth \$100,000 (Finch et al., 2020). Furthermore, StageIt registered an increase in its customer base that reached over 700,000 users (StageIT, 2020).

The increase in profits and users registered on the StageIt platform are depictive of the new live music trend that developed during the pandemic crisis: not only companies and artists showed a willingness to perform online, but also the audience response illustrated interest in the virtual offering. However, the delayed success of StageIt is indicative of difference in customers' perception about online and offline concerts. Thus, to design a customized experience, it is important to investigate not only which of the two experiences is more satisfying and meaningful to customers, but also how do the two kind of experiences differ from each other from customers' perspective. Furthermore, it is interesting to understand if as for goods, even experiences are valued more by customers when they are offline than when they are lived online (Atasoy and Morewedge, 2018).

## 2.4 Experiences and Music festivals: previous empirical studies

Pine and Gilmore's studies are the starting point of this work: the author's framework about "the four realms of experience" (1999) has been subject of few empirical examinations in different contexts: for instance, the tourism industry. However, several other studies have

addressed the issue of what can influence customers' general experiences and its effect (Mehmetoglu & Engen, 2011). Mehmetoglu and Engen applied the 4Es framework to the tourism industry, the procedure followed by the two authors was inspiring for this work. Their goal was to understand how the four dimensions proposed by Pine and Gilmore were able to influence customers satisfaction from two different tourism contexts, the Ice Music Festival and the Maihaugen Museum (2011). «This study suggests that an evaluation of an experience based on the sense of feeling, learning, being, and doing may be an appropriate tool» (Mehmetoglu & Engen, 2011, p. 250). The results outlined in their study highlighted that the dimension of escapism and that of esthetics are those that influence satisfaction for the Ice Music Festival, whereas considering the Maihaugen Museum education and esthetics are the most influencing factors. The results obtained are somehow ambiguous (Mehmetoglu & Engen, 2011) since, according to Pine and Gilmore, the richest experience should involve a portion of each of the four dimensions (1999).

Regarding concerts and music festivals experiences, the majority of the studies conducted had the final aim of measuring the economic impact that festivals and music concerts can have on the hosting city and community (Thrane, 2002). Borges, Rodrigues, and Matias (2016) demonstrated that individuals who feel satisfied with the experience they have lived, concerts or music festivals, are more propense to spend money in both the enclosure and the city where the event takes place. Notably, the studies above have focused their attention on customers' expenditures and change in business turnover (Wood, 2005).

Another body of literature focuses on customers' motivations to attend such events and how this affects their satisfaction level (Formica & Uysal, 1996; Crompton & McKay, 1997; Tomljenovic & Larsson & Faulkner, 2001; Nicholson & Pearce, 2001; Bowen & Daniels 2005). One of the studies identified as most pertinent to this work is the one conducted in 2001 by Tomljenovic, Larsson, and Faulkner in which the authors focused on the predictors of customer

satisfaction with the festival experience. The data was collected at the Storsjöran Music Festival in Sweden in 1999. The questionnaire was designed to measure motivations and satisfaction of the respondents. According to Tomljenovic et al. (2001) the motivation factors that most impact on satisfaction were enjoying the program and partying opportunities provided by the music festival. Excitement and socialization were considered significant reasons for attending the festival but more likely aimed to elevate the individuals' moods before the event took place (Idem, 2001).

Within the studies regarding motivation to attend a concert, all of them identified socialization as a common motivation, which included both know-group socialization and external socialization (Formica, and Uysal, 1996; Crompton, and McKay, 1997, Tomljenovic, Larsson, and Faulkner, 2001, Nicholson, and Pearce, 2001, Bowen, and Daniels 2005). Since socialization resulted in being a relevant concept in terms of motivation and due to the context of this study (virtual and collocated live music experiences), this aspect will be further researched in this project. As a matter of fact, one of the main differences between virtual and live concerts relates to socialization: people attend virtual shows with an infinitely smaller number of people than during collocated experiences. Therefore, socialization assumes an interesting role and becomes, along with the 4Es, a useful parameter in understanding how each dimension contributes to the customer perception of overall satisfaction, meaningfulness and willingness to pay.

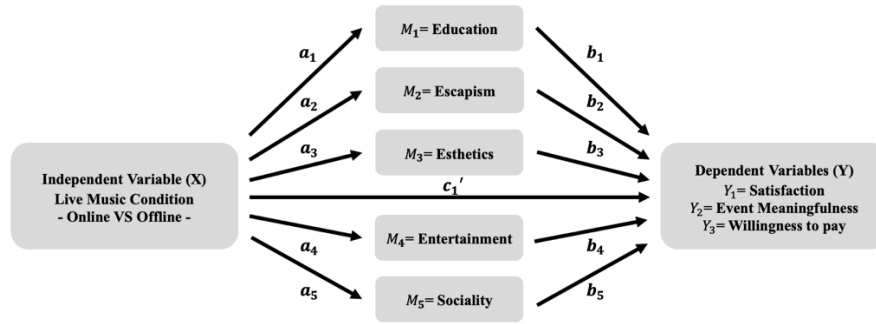
## 2.5 Research gaps in knowledge about offline and online music festivals

This work project focuses on a current and relatively new topic that, up to date, has not been largely investigated. As mentioned in the previous sections, virtual music streaming is a trend that has been existing for the last decade but did not receive significant attention and success until the Covid-19 pandemic emergency. Thus, the majority of the literature focuses on

collocated concerts and general online experiences, whereas this work aims at comparing the online and offline music festival and concert experiences.

However, a distinctive study conducted by Atasoy and Morewedge in 2018 enabled the comparison between value ascribed by customers to physical and digital goods. Their empirical examination was applied thanks to the Pay-What-You-Want paradigm (PWYW). The pay-what-you-want paradigm is a price strategy that allows customers to choose the price for the good, service, or experience they are willing to buy (Gneezy et al., 2012). The authors asked the visitors of Old North Church in Boston to make a donation for a picture: some of the tourists would have received a polaroid, while others its digital version. As predicted, tourists with the physical photograph in hand paid more than those with the digital one (Atasoy and Morewedge, 2018). The research conducted by Atasoy and Morewedge (2018) is relevant to this study since they demonstrated that individuals have different perceptions of online and offline goods: particularly, individuals ascribe a higher value to physical goods than to their digital counterpart. Furthermore, customers' perception of value is also able to influence their willingness to pay. Based on Atasoy and Morewedge's findings (2018), it is interesting to investigate if the same trend as for goods applies to experiences as well.

The purpose of this study is to measure and compare customer satisfaction, event meaningfulness and willingness to pay in both offline and online music festivals and concerts. Furthermore, thanks to the experiential framework proposed by Pine and Gilmore, this work investigates the differences in customer perception of the five dimensions (entertainment, education, esthetics, escapism and sociality) and how they were able to influence customer satisfaction, event meaningfulness and willingness to pay in each condition. Figure 2 shows the model implemented in order to test the mentioned hypothesis.



**Figure 2:** Parallel multiple mediator model with K mediators (Hayes, 2012)

### 3. Research Design

In this experiment three models were analyzed. The type of research design chosen for the three models is a between-subjects design: this design implies the random allocation of each respondent to one of the two conditions, namely online or offline experience. The random assignment allows the highest average similarity between the two groups (Charness, Gneezy, & Kuhn, M 2012).

#### 3.1 Recruitment

For the purpose of the study, a questionnaire was designed and later distributed to collect relevant data (appendix 1-15). Respondent recruitment was done through social media. The majority of the respondents were recruited through Reddit, in several different music communities (e.g. r/musicfestivals, r/jambands, r/billieeilish, r/elliegoulding etc.); the rest of the answers were collected thanks to Facebook fan groups, Instagram music accounts and YouTube channels.

#### 3.2 Sample composition

The recruitment process led to 348 respondents gathered. Of the 348 initial respondents, 158 proceeded to the questionnaire. 136 respondents were disqualified through the screening questions, since they did not fulfill the requirement of having attended both online and online concerts, or because their answers were incomplete. In addition, during the dataset cleaning

process, outliers in terms of filling out duration time were also excluded. As aforementioned, 158 people were able to continue with the questionnaire. Of them, 86 were randomly assigned to the CLX (offline) condition, whereas 72 to the VLX (online) one. From a demographic point of view, 60 respondents are female, while 98 are male; the average age registered in the sample is 29 years. For the offline condition, 48.8 % (42) of the respondents attended a concert held in the USA, 29.1 % (25) in Italy, whereas the remaining 22.1% (19) attended concerts held in Brazil, Canada and Europe. The online concerts mentioned by respondents were held for 65.3% (47) in the United States, 23.6% (17) in Europe and 11.1% (8) in Brazil and South Korea.

### 3.3 Experiment variables

In the three models, the independent variable  $X$ , Live Music Condition, was a binary one, namely Online (1) and Offline (0), whereas the mediators were  $M_1$ = Education,  $M_2$ = Escapism,  $M_3$ = Esthetics,  $M_4$ = Entertainment,  $M_5$ = Sociality. Last, a dependent variable for each testing model was identified:  $Y_1$ = Satisfaction,  $Y_2$ = Event Meaningfulness, and  $Y_3$ = Willingness to pay. In each of the three models the direct and indirect (mediated) effect of independent variable  $X$  on the three dependent variables ( $Y_1$ ,  $Y_2$ , and  $Y_3$ ) will be tested.

## 4. Questionnaire Construction

The questionnaire was divided into four sections: the first section had a screening role, which means that respondents had to show specific characteristics in order to participate in the research (appendix 2 & 3); the second one was directed to investigate each of the five parameters (entertainment, education, esthetics, escapism and sociality) (appendix 6 –10); the third section had the aim of measuring satisfaction and meaningfulness (appendix 12 & 13); whereas the fourth and last part was dedicated to the price analysis (appendix 14) (Rattray & Jones, 2007). The scale used in the questionnaire was a five-point scale, where: 1 = strongly



disagree, 2= somewhat disagree, 3= neither agree nor disagree, 4= somewhat agree, 5= strongly agree. The Likert scale was implemented in order to obtain quantitative data and easily analyze them. The first two questions had a screening role: only respondents who had attended both online and offline concerts, or music festivals had the chance to continue with the questionnaire. By doing so, similarity among individuals participating in the experiment and unbiased experiment are guaranteed (appendix 2 & 3). In the second area of the questionnaire, four statements were showed for each dimension to understand how relevant the five parameters are to individuals in each condition. The average result given by the four items was used as the final data representing the parameter. To ensure the reliability of the data, and measure the internal consistency of the scale, Cronbach's Alpha for each average parameter was computed (Connelly, 2011). Cronbach's Alpha for Education was 0.7120; for Escapism was 0.7795; for Esthetics was 0.7523; for Entertainment was 0.8638; whereas, for Sociality was 0.8272 . All the values assumed by the Cronbach's Alpha are representative of a good level of internal consistency (Connelly, 2011). Examples of items used for each dimension (appendix 6 – 10): *Entertainment*: "The music festival was entertaining to me"; *Education*: "The music festival made me more knowledgeable about music"; *Escapism*: "Listening to the concert made me take a break from reality"; *Esthetics*: "The scenery was aligned with my sense of aesthetics/style"; *Sociality*: "The music festival was a good chance to share the joy with others". Again, in order to measure satisfaction and meaningfulness, the experiment dependent variables, a scale of four items was used (appendix 12 & 13). Examples of items used with the aim of measuring the mentioned independent variables are, respectively: "I am overall satisfied with the music festival" and "The experience has been an important moment of my life". The average result of each parameter was used in the analyses. Therefore, to ensure reliability of the data, Cronbach's Alpha were calculated and found adequate: Satisfaction's Cronbach Alpha was 0.8886, whereas Meaningfulness' one was 0.8324. The items used to investigate the five mediators and the two

dependent variables were inspired by the Mehmetoglu and Engen's study: "Pine and Gilmore's Concept of Experience Economy and Its Dimensions: An Empirical Examination in Tourism." (2011). Whereas, to investigate customers willingness to pay, one relevant open-ended question about price was asked: "Which do you think would be a fair price?" (appendix 14). The last question was based on the pay-what-you-want paradigm (PWYW): individuals could express any amount considered a fair price (Gneezy et al., 2012).

## 5. Analysis and results

### 5.1 Analysis Method

To analyze the mentioned research design, a *parallel multiple mediator model with K mediators* ( $M_k$ ) was implemented through Python (Hayes, 2012) (Figure 2). In this model, X (independent variable) is modeled as affecting K mediators variables, and the K mediators variables are causally linked to Y (dependent variable), but the mediators are assumed not to affect each other (Hayes, 2012). The mentioned method involves four main steps: first, in model 0.1-0.5, the effect of the independent variable on each mediator is measured ( $a_k$ ) (Figure 2): «Because the two experimental groups are coded by a one-unit difference, the total effect (on Ms) can be interpreted as a mean difference.» (Hayes, 2012, pp. 13). Second, in model 0.6, a multiple linear regression measures the effect of each mediator on the dependent variable, namely  $b_k$  (Figure 2). This is the only regression of the analysis that involves continuous independent variables: hence, the results must not be interpreted as mean differences. Third (model 0.7), the direct effect of the independent variable upon the dependent one is measured, namely  $c_1'$  (Figure 2). Again, the results can be interpreted as mean comparisons (Idem, 2012). Fourth (0.8), the indirect effect of the independent variable on the dependent one ( $a_k b_k$ ) (Figure 2), namely the mediated effect of X on Y, is computed. Even in this last analysis, the results are interpreted as

means comparisons. The statistical significance of the indirect effect is evaluated through asymmetric bootstrap confidence intervals: if the value 0 is excluded from the confidence interval, the analysis is significant (Idem, 2012). During the entire analysis a 95% confidence level is assumed.

## 5.2 Model 1 – Satisfaction Measurement

As mentioned in the previous section, the first model investigates the existing relationship between online and offline satisfaction and how the five mediators influence this relationship. Models 1.1-1.5 measure  $a_k$ , namely the effect of X on  $M_k$ . In model 1.1 and model 1.2 (appendix 16, 17), where the outcomes were respectively Education and Escapism, adjusted R-squared assumed a negative value and the p-value resulted in being greater than 0.05, making the model not adequate to infer. Model 1.3 (appendix 18), where the outcome was Esthetics, registered and adjusted R-squared = 0.3263, meaning that 32% of the dependent variable's variance was explained by X. Moreover, a p-value of 0.000, enables to apply the findings to the whole population. In this analysis the coefficient assumed a value of -0.9405 ( $a_3$ ) (SE= 0.1061; t= 61.3559; p-value= 0.0000), meaning that the online condition has an average impact on Esthetics that is smaller by 0.9405 than the offline one. Model 1.4 (appendix 19) considered as an outcome Entertainment. Adjusted R-squared = 0.2359 and p-value smaller than 0.05 allowed to extend the findings to the entire population. In this case, the coefficient presented a result of -0.7444 ( $a_4$ ) (SE= 0.1044; t= -7,1280; p-value= 0.000), thus, it is possible to conclude that the online condition, when compared to the offline one, is, on average, less likely to influence entertainment by 0.744. Model 1.5 (appendix 20), where the outcome was Sociality, presented and adjusted R-squared of 0.4240 and a p-value of 0.0000. Therefore, the findings are valid for the entire population. The coefficient assumed a value of -1.3236 ( $a_5$ ) (SE= 0.1217; t= -10.8772; p-value= 0.000): online concerts have an average impact on Sociality that is smaller by 1.3236 than offline music events.

Model 1.6 is aimed at measuring  $b_k$ : the impact of each mediator on Satisfaction (appendix 21). The model showed an adjusted R-squared of 0.9396, an excellent result in terms of representativeness of the variance of the dependent variable to mediators changes. Furthermore, the p-value of the regression assumed a value smaller than 0.05, a data that made the findings significant. Also, according to this regression, all the mediators effects were significant and able to influence Satisfaction. In particular, Education,  $b_1 = 0.0736$  (SE= 0.0293;  $t = 2.5085$ ; p-value = 0.0132); Escapism,  $b_2 = 0.0671$  (SE= 0.0296;  $t = 2.2720$ ; p-value = 0.0245); Esthetics,  $b_3 = 0.1864$  (SE= 0.0381;  $t = 4.8869$ ; 0.0000); Entertainment,  $b_4 = 0.665$  (SE = 0.054;  $t = 12.3233$ ; p-value = 0.0000); and Sociality,  $b_5 = 0.1585$  (SE= 0.0331;  $t = 4.7851$ ; p-value= 0.0000) (appendix 21).

Once all the necessary data were obtained, the core of the model is analyzed: direct (model 1.7) and indirect (1.8) effects. Model 1.7 (appendix 22) established the direct effect of the dependent variable X on the independent one  $Y_1$ , Satisfaction. The coefficient presented by X in this regression was 0.2738 ( $c_1'$ ) (SE= 0.0487;  $t = 5.6160$ ; p-value= 0.0000), meaning that the online experience is on average more satisfying than the offline one by 0.2738. Whereas, the indirect effect (model 1.8, appendix 23), namely the mediated effect of X on Y, presented the following results. Education ( $a_1b_1$ ) and Escapism ( $a_2b_2$ ) did not result in being significant, since their confidence intervals included value 0. Instead, for Esthetics, Entertainment and Sociality, value 0 was excluded from each confidence interval, confirming that each parameter reached the adequate significance level. Esthetics assumed a coefficient  $a_3b_3 = -0.1753$  and a Boot SE= 0.442, meaning that individuals in the online condition are, on average, less satisfied due to esthetics by 0.1753. Furthermore, in the online condition individuals are, on average, less satisfied with the event due to Entertainment by 0.4950, since coefficient  $a_4b_4 = -0.4950$  and Boot SE= 0.0898. Last, the Sociality mediator assumed a coefficient of -0.2098 ( $a_5b_5$ ) and a

Boot SE= 0.0536 meaning that individuals in the online condition are less satisfied than those in the offline one due to Sociality by 0.2098.

### 5.3 Model 2 – Event Meaningfulness Measurement

The second model measures the relationship between Live music condition (X) and Event meaningfulness ( $Y_2$ ) and investigates how the experiential dimensions impact this relationship. First, model 2.1-5 measure the effect of X on  $M_k$ , namely  $a_k$ . Model 2.1 (appendix 24) and model 2.2 (appendix 25), where the outcome were respectively Education and Escapism, presented negative R-squared and p-values above 0.05, making the models non appropriate to infer. On contrary, model 2.3 (appendix 26) where the outcome was Esthetics, registered an adjusted R-squared= 0.3263 and a p-value smaller than 0.05. These data made the analysis significant. In particular, since  $a_3 = -0.9405$  (SE= 0.1061;  $t = -8.8624$ ; p-value= 0.000), we can infer that the online condition has a smaller impact on esthetics than the offline condition by 0.9405. Model 2.4 (appendix 27) considers as outcome Entertainment. Again, the p-value was 0.000 and the adjusted-R squared 0.2359. From  $a_4 = -0.7444$  (SE= 0.1044;  $t = -7.1280$ ; p-value= 0.000) it is possible to conclude that the online condition has an impact on Entertainment smaller by 0.7444 than the offline one. In model 2.5 (appendix 28), where the outcome was Sociality, adjusted R-squared= 0.4240 and p-value = 0.000. Therefore, the model was considered adequate to infer. In this case,  $a_5 = -1.3236$  (SE= 0.1217;  $t = -10.8772$ ; p-value= 0.0000), implying that the online condition has a smaller effect on Sociality than does the offline condition: the difference between the two impacts was of 1.3236.

Model 2.6 (appendix 29), where the effect of the mediators on Meaningfulness was measured, presented an adjusted R-squared of 0.6097, hence a good portion of the variance of meaningfulness is described by the mediators. Moreover, the p-value assumed by the model was smaller than 0.05, therefore the analysis resulted in being significant. However, only two out of five parameters resulted significant, with p-values lower than 0.05, and able to affect

meaningfulness: Entertainment ( $b_4 = 0.5505$ ; SE= 0.1971;  $t = 2.7931$ ; p-value= 0.0059) and Escapism ( $b_2 = 0.2218$ ; SE= 0.1079;  $t = 2.0552$ ; p-value= 0.0416).

Model 2.7 (appendix 30) explains the direct effect of X on  $Y_2$  ( $c_2'$ ).  $c_2' = -0.2599$ , meaning that, on average, the event is perceived to be less significant when it is online than when it is offline. However, this analysis resulted not significant since p-value =  $0.1465 > 0.05$ . Therefore, even if valid for the sample, it was not possible to apply the findings to the population.

Whereas, model 2.7 (appendix 31), is aimed at explaining the indirect effect: the mediated effect of online/offline conditions on meaningfulness. Again, Education ( $a_1b_1$ ), Escapism ( $a_2b_2$ ), Esthetics ( $a_3b_3$ ), and Sociality ( $a_5b_5$ ) did not reach the expected significance level. Whereas, Entertainment ( $a_4b_4 = -0.4098$ ; Boot SE= 0.1481) mediation effect on Meaningfulness resulted in being significant since value 0 was excluded by the confidence intervals of both mediators. As shown by the coefficients, individuals perceive the online event as less meaningful than the offline one due to Entertainment by 0.4098.

#### 5.4 Model 3 – Willingness To Pay Measurement

Model 3 investigates the direct and indirect relationship between online/offline condition (X) and Willingness to pay ( $Y_3$ ). In particular, models 3.1-5 measure the effect of X on the mediators, namely  $a_k$ . Unfortunately, models 3.1 (appendix 32) and 3.2 (appendix 33), where the outcomes were respectively education ( $a_1$ ) and escapism ( $a_2$ ) resulted in not being significant by showing a negative R-squared and p-value greater than 0.05. Whereas, for Esthetics, model 3.3 (appendix 34), adjusted R-squared= 0.3460 and a p-value smaller than 0.05, confirming the adequacy of the model. The coefficient presented by this regression was  $a_3 = -0.9687$  (SE= 0.1063;  $t = -9.1094$ ; p-value= 0.000). From the value assumed by the coefficient it is possible to infer that the online condition impacts on esthetics less than the offline one, where the difference of the impact was 0.9687. For Entertainment, Model 3.4 (appendix 35), adjusted R-Squared= 0.2504 and a p-value smaller than 0.05. Again, the model

was considered adequate to infer. The coefficient of the regression was  $a_4 = -0.7586$  (SE= 0.1041;  $t = -7.2895$ ; p-value= 0.000), meaning that the online condition has a smaller effect on entertainment if compared to the offline by 0.7586. Last, Sociality, model 3.5 (appendix 36), presented an adjusted R-squared of 0.4446 and a p-value of 0.0000, implying that the model is significant. The coefficient of the variable was  $a_5 = -1.3350$  (SE= 0.1997;  $t = -11.1570$ ; p-value= 0.0000). Again, the online condition has a smaller impact on Sociality than the offline one.

Model 3.6 (appendix 37) where the impact of the mediators on the Willingness to pay variable was computed, presented an adjusted R-squared of 0.1862, which unfortunately was a small value and implied that only a small portion of the variance of Willingness to pay variable was expressed by the mediators. However, the p-value smaller than 0.05 made the model significant and enabled to infer the findings to the entire population. Of the five variables involved in the regression, just one, Esthetics, resulted in being significant (p-value= 0.0285). Esthetics influences Willingness To Pay by 37.4729 ( $b_3$ ) (SE= 16.9399;  $t = 2.2121$ ; p-value = 0.0285).

Model 3.7 (appendix 38) measured the direct effect of X on Willingness To Pay: in the online condition individuals are willing to pay, on average, 46.5421 euros less than those in the offline condition, due to  $c_3' = -46.5421$  (SE= 22.3480;  $t = -2.0826$ ; p-value= 0.0390). Last, model 3.7 (appendix 39) measured the indirect effect, namely the mediated effect of X on Willingness to pay. All the mediators' effects, despite Esthetics, resulted in being not significant, since their confidence intervals included the value 0. On the contrary, Esthetics presented a coefficient  $a_3b_3 = -36.299$  and a Boot SE of 15.1820: people in the online condition are willing to pay 36.299 euros less than those in the offline condition due to the esthetics parameter. Figure 3 includes the results of entire experiment and distinguishes significant and non-significant values.

	Satisfaction				Meaningfulness				Willingness to pay			
	a: X to M	b: M to Y	ab: indirect	c': direct	a: X to M	b: M to Y	ab: indirect	c': direct	a: X to M	b: M to Y	ab: indirect	c': direct
Education	0.1643	0.0736	0.0108	0.2738	0.1463	0.1494	0.0219	-0.2599	0.1560	-1.3738	-0.2143	-46.5421
Escapism	-0.1124	0.0671	-0.0075		-0.0076	0.2218	-0.0249		-0.1371	17.4521	-2.3925	
Esthetics	-0.9405	0.1864	-0.1753		-0.1124	0.2271	-0.2136		-0.9687	37.4729	-36.2991	
Entertainment	-0.7444	0.6650	-0.4950		-0.7444	0.5505	-0.4098		-0.7586	-24.8356	18.8393	
Sociality	-1.3236	0.1585	-0.2098		-1.3236	0.0921	-0.1219		-1.3350	5.4472	-7.3120	
				*Not Significant	*Significant				*Significant along the entire process			



analysis of a current topic which was not highly examined before, namely a comparison between virtual and collocated live music experiences. In particular, the well-known framework developed by Pine and Gilmore “The four realms of experience” (1999, p.30) found an innovative application: virtual live music experiences were not investigated before by this framework.

The results and conclusions brought by the data analysis can aid companies in the experience design process: the customization process starts with knowing what customers receive in terms of feeling, learning, being, and doing and leads to the sweet spot, where the experience will be certainly satisfying and meaningful, and consequently engaging. Achieving greater level of engagement would induce customers to be willing to pay premium fees for the experience they are living and therefore allow companies to operate sustainably even during Covid-19 times.

Therefore, in order to achieve a higher level of customer satisfaction, event meaningfulness and value, companies should design virtual experiences with more entertainment, esthetics, and sociality related elements. For instance, companies organizing virtual concerts could increase Esthetics perception by ensuring streaming locations able to reflect the artists and attendees’ music genre and preferences. Such a decision would induce customers to feel closer to the stage, immersed in the experience and therefore willing to pay more or being more satisfied. Furthermore, to increase Socialization and therefore satisfaction with the experience, companies organizing virtual concerts might reproduce the random seats allocation that happens in a theatre or in a stadium on the online platform where the concert takes place and allow external socialization. Again, companies organizing virtual concerts could also sell group tickets, to increase the known-group socialization and allow friends and family to attend a virtual concert together. Last, in order to increase Entertainment companies organizing virtual music experiences might set up pre- or post-virtual live experiences in which artists are interviewed, or in which virtual meet and greets happen. From this data we can conclude that

the virtual live music industry still has margin of improvement when considering Entertainment, Esthetics, and Sociality.

Furthermore, even music experiences offline still have chances of increasing customer satisfaction: as mentioned before, individuals tend to be more satisfied with the online experience than with the offline one. Particularly, companies organizing traditional concerts should focus again on the three parameters able of mediating satisfaction (entertainment, esthetics and sociality). It is important to take in consideration that a large number of virtual experience attended by the respondents happened during the Covid-19 pandemic, the higher satisfaction with online experiences could be also attributed in to this issue.

## 7. Limitations and future research

In this work, limitations are found in the distribution of the questionnaire: individuals responding have attended different concerts at different times. Perhaps, sampling by taking into consideration two events, namely a CLX and a VLX, and interviewing participants right after the shows have finished would have led to more precise and informative answers. Moreover, volunteers of the experiment had attended concerts and music festivals in different parts of the world: cultural issues could arise in terms of preferences about concerts and festivals design. Last, it was not possible to extend all the findings of the three experiments due to significance issues. The results were skewed probably due to sample dimensions and imprecision of the responses. It is suggested, for future research, to extend this kind of experiment to other industries of the experience economy, for instance sports or arts.

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## 9. Appendix

0% 100%



Hello! My name is Eleonora and I am currently working towards the completion of my master's in management at Nova University (Lisbon). For my final project, I am looking at how music festivals can improve their customer satisfaction both in their online and live experiences. This survey will take about 7 minutes to fill. Your answers are key in order to make my project valid and exhaustive and your time is very much appreciated. If you require or are interested in any further information, do not hesitate to contact me at: [ele.pesenti@gmail.com](mailto:ele.pesenti@gmail.com).

Thank you for your time.

Take the questionnaire

### Appendix 1: Questionnaire introduction

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0% 100%



I have attended an **online** music festival or concert

Yes

No



### Appendix 2: Questionnaire - Online screening

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0% 100%



I have attended an **in person (live)** music festival or concert

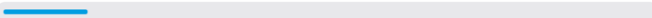
Yes

No



### Appendix 3: Questionnaire – Offline screening

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0%  100%



To what extent do you agree or disagree with the following statement? [1= strongly disagree, 2= somewhat disagree, 3= neither agree nor disagree, 4= somewhat agree, 5= strongly agree]

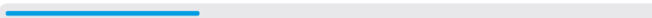
1                      2                      3                      4                      5

Attending to concerts is something I like doing frequently



#### Appendix 4: Questionnaire

---

0%  100%



Recall a concert or music festival you have attended **online**.  
What is the name of the music festival or concert?

In which country was it held?

How long ago was it? Please write the number of months below

#### Appendix 5: Questionnaire

---

Keeping in mind the concert or music festival you just mentioned, to what extent do you agree or disagree with the following statements? [1= strongly disagree, 2= somewhat disagree, 3= neither agree nor disagree, 4= somewhat agree, 5= strongly agree]

1                      2                      3                      4                      5

During the event I felt like I stepped into another world



After the music festival/concert I felt more confident about my music knowledge



I learnt something during the music festival/concert



The music festival/ concert experience was memorable to me



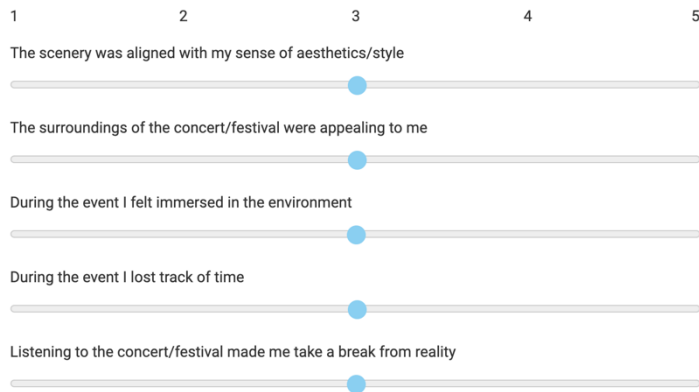
The event made me more knowledgeable about music



#### Appendix 6: Questionnaire – 4Es + Sociality

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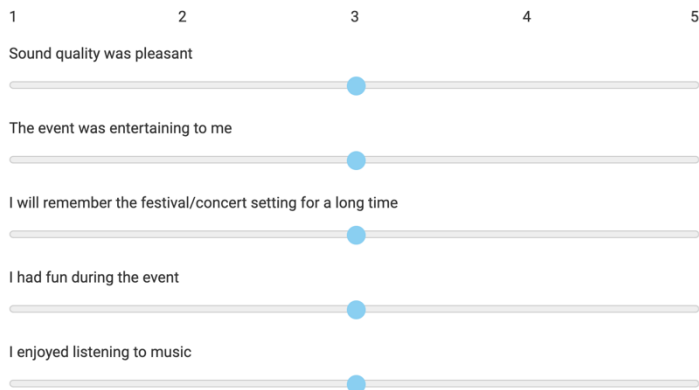
Keeping in mind the concert or music festival you just mentioned, to what extent do you agree or disagree with the following statements? [1= strongly disagree, 2= somewhat disagree, 3= neither agree nor disagree, 4= somewhat agree, 5= strongly agree]



### Appendix 7: Questionnaire – 4Es + Sociality

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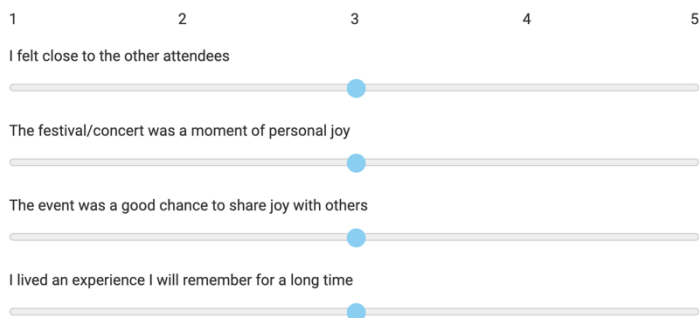
Keeping in mind the concert or music festival you just mentioned, to what extent do you agree or disagree with the following statements? [1= strongly disagree, 2= somewhat disagree, 3= neither agree nor disagree, 4= somewhat agree, 5= strongly agree]



### Appendix 8: Questionnaire – 4Es + Sociality

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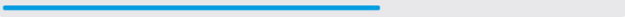
Keeping in mind the concert or music festival you just mentioned, to what extent do you agree or disagree with the following statements? [1= strongly disagree, 2= somewhat disagree, 3= neither agree nor disagree, 4= somewhat agree, 5= strongly agree]



### Appendix 10: Questionnaire – 4Es + Sociality

---



0%  100%




Did you participate to the concert/music festival alone?

Yes

No

#### Appendix 10: Questionnaire – Alone or ingroup participation

---

0%  100%



Keeping in mind the concert or music festival you mentioned, to what extent do you agree or disagree with the following statement? [1= strongly disagree, 2= somewhat disagree, 3= neither agree nor disagree, 4= somewhat agree, 5= strongly agree]

1 2 3 4 5

I felt close to the people I was attending the concert/music festival with



#### Appendix 11: Questionnaire - Alone or ingroup participation

---

Keeping in mind the specific concert or music festival you mentioned, to what extent do you agree or disagree with the following statements? [1= strongly disagree, 2= somewhat disagree, 3= neither agree nor disagree, 4= somewhat agree, 5= strongly agree]

1 2 3 4 5

During the music festival/concert I felt happy



I would recommend to a friend this event



I am overall satisfied with the event



My experience at the music festival/concert exceeded my expectations



I felt fulfilled by this music festival/concert experience



#### Appendix 12: Questionnaire – Satisfaction and meaningfulness measurement

---

Keeping in mind the specific concert or music festival you mentioned, to what extent do you agree or disagree with the following statements? [1= strongly disagree, 2= somewhat disagree, 3= neither agree nor disagree, 4= somewhat agree, 5= strongly agree]

1	2	3	4	5
The experience has been an important moment of my life				
<div><div></div></div>				
If I had the chance, I would take part again to this event				
<div><div></div></div>				
I would give a positive review of this festival/concert				
<div><div></div></div>				
The music festival/concert experience was meaningful to me				
<div><div></div></div>				

#### Appendix 13: Questionnaire – Satisfaction and meaningfulness measurement



How much did you pay for the mentioned music festival/concert (donations included)?  
Please express an amount in Euros

Assume that this event is for free: if you could set your own price for the ticket of this event, what would a fair price be? Please express an amount in Euros

Assume that you had to pay a ticket for this concert only AFTER it finished. How much would you be willing to pay based on your experience? Please express an amount in Euros

#### Appendix 14: Questionnaire – Actual and fair ticket price



What is your age?

What is your gender?

Male

Female

Prefer not to say

#### Appendix 15: Questionnaire - Demographics

#### Outcome = Esthetics\_AVG OLS Regression Summary

<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>MSE</b>	<b>F</b>	<b>df1</b>	<b>df2</b>	<b>p-value</b>
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0.0115 -0.0013 0.4643 1.8070 1 156 0.1808

#### Coefficients

	<b>coeff</b>	<b>se</b>	<b>t</b>	<b>p</b>	<b>LLCI</b>	<b>ULCI</b>
<b>Cons</b>	3.3953	0.0735	46.2091	0.0000	3.2513	3.5394
<b>On/Offline</b>	0.1463	0.1088	1.3442	0.1808	-0.0670	0.3597

Appendix 16 Model: 1.1

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#### Outcome = Escapism\_AVG

##### OLS Regression Summary

<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>MSE</b>	<b>F</b>	<b>df1</b>	<b>df2</b>	<b>p-value</b>
0.0052	-0.0076	0.6075	0.8150	1	156	0.3680

#### Coefficients

	<b>coeff</b>	<b>se</b>	<b>t</b>	<b>p</b>	<b>LLCI</b>	<b>ULCI</b>
<b>Cons</b>	3.9041	0.0840	46.4506	0.0000	3.7393	4.0688
<b>On/Offline</b>	-0.1124	0.1245	-0.9028	0.3680	-0.3564	0.1316

Appendix 17 Model: 1.2

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#### Outcome = Esthetics\_AVG

##### OLS Regression Summary

<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>MSE</b>	<b>F</b>	<b>df1</b>	<b>df2</b>	<b>p-value</b>
0.3349	0.3263	0.4413	78.5430	1	156	0.0000

#### Coefficients

	<b>coeff</b>	<b>se</b>	<b>t</b>	<b>p</b>	<b>LLCI</b>	<b>ULCI</b>
<b>Cons</b>	4.3953	0.0716	61.3559	0.0000	4.2549	4.5358
<b>On/Offline</b>	-0.9405	0.1061	-8.8624	0.0000	-1.1485	-0.7325

Appendix 18 Model: 1.3

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#### Outcome = Entertainment\_AVG

##### OLS Regression Summary

<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>MSE</b>	<b>F</b>	<b>df1</b>	<b>df2</b>	<b>p-value</b>
0.2457	0.2359	0.4274	50.8091	1	156	0.0000

#### Coefficients

	<b>coeff</b>	<b>se</b>	<b>t</b>	<b>p</b>	<b>LLCI</b>	<b>ULCI</b>
<b>Cons</b>	4.7965	0.0705	68.0355	0.0000	4.6583	4.9347
<b>On/Offline</b>	-0.7444	0.1044	-7.1280	0.0000	-0.9491	-0.5397

Appendix 19 Model: 1.4

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#### Outcome = Sociality\_AVG

##### OLS Regression Summary

<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>MSE</b>	<b>F</b>	<b>df1</b>	<b>df2</b>	<b>p-value</b>
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0.4313 0.4240 0.5803 118.3125 1 156 0.0000

#### Coefficients

	coeff	se	t	p	LLCI	ULCI
<b>Cons</b>	4.5736	0.0821	55.6761	0.0000	4.4126	4.7346
<b>On/Offline</b>	-1.3236	0.1217	-10.8772	0.0000	-1.5622	-1.0851

Appendix 20 Model: 1.5

#### Outcome = Satisfaction\_AVG OLS Regression Summary

R <sup>2</sup>	Adj. R <sup>2</sup>	MSE	F	df1	df2	p-value
0.9423	0.9396	0.0374	410.6873	6	151	0.0000

#### Coefficients

	coeff	se	t	p	LLCI	ULCI
<b>Cons</b>	-0.5974	0.1187	-5.0329	0.0000	-0.8300	-0.3647
<b>On/Offline</b>	0.2738	0.0487	5.6160	0.0000	0.1782	0.3693
<b>EDU_AVG</b>	0.0736	0.0293	2.5085	0.0132	0.0161	0.1311
<b>ESC_AVG</b>	0.0671	0.0296	2.2720	0.0245	0.0092	0.1251
<b>EST_AVG</b>	0.1864	0.0381	4.8869	0.0000	0.1116	0.2611
<b>ENT_AVG</b>	0.6650	0.0540	12.3233	0.0000	0.5592	0.7707
<b>SOC_AVG</b>	0.1585	0.0331	4.7851	0.0000	0.0936	0.2234

Appendix 21: Model 1.6

#### Direct effect of On/Offline on Q13\_AVG:

Effect	SE	t	p	LLCI	ULCI
0.2738	0.0487	5.6160	0.0000	0.1782	0.3693

Appendix 22 Model: 1.7

#### Indirect effect of On/Offline on Q13\_AVG:

	Effect	Boot SE	BootLLCI	BootULCI
<b>EDU_AVG</b>	0.0108	0.0097	-0.0026	0.0374
<b>ESC_AVG</b>	-0.0075	0.0101	-0.0359	0.0065
<b>EST_AVG</b>	-0.1753	0.0442	-0.2799	-0.1014
<b>ENT_AVG</b>	-0.4950	0.0898	-0.7023	-0.3392
<b>SOC_AVG</b>	-0.2098	0.0536	-0.3256	-0.1136

Appendix 23 Model: 1.8

#### Outcome = EDU\_AVG OLS Regression Summary

R <sup>2</sup>	Adj. R <sup>2</sup>	MSE	F	df1	df2	p-value
0.0115	-0.0013	0.4643	1.8070	1	156	0.1808

#### Coefficients

	<b>coeff</b>	<b>se</b>	<b>t</b>	<b>p</b>	<b>LLCI</b>	<b>ULCI</b>
<b>Cons</b>	3.3953	0.0735	46.2091	0.0000	3.2513	3.5394
<b>On/Offline</b>	0.1463	0.1088	1.3442	0.1808	-0.0670	0.3597

Appendix 24 Model: 2.1

**Outcome = ESC\_AVG**

**OLS Regression Summary**

<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>MSE</b>	<b>F</b>	<b>df1</b>	<b>df2</b>	<b>p-value</b>
0.0052	-0.0076	0.6075	0.8150	1	156	0.3680

**Coefficients**

	<b>coeff</b>	<b>se</b>	<b>t</b>	<b>p</b>	<b>LLCI</b>	<b>ULCI</b>
<b>Cons</b>	3.9041	0.0840	46.4506	0.0000	3.7393	4.0688
<b>On/Offline</b>	-0.1124	0.1245	-0.9028	0.3680	-0.3564	0.1316

Appendix 25 Model: 2.2

**Outcome = Esthetics\_AVG**

**OLS Regression Summary**

<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>MSE</b>	<b>F</b>	<b>df1</b>	<b>df2</b>	<b>p-value</b>
0.3349	0.3263	0.4413	78.5430	1	156	0.0000

**Coefficients**

	<b>coeff</b>	<b>se</b>	<b>t</b>	<b>p</b>	<b>LLCI</b>	<b>ULCI</b>
<b>Cons</b>	4.3953	0.0716	61.3559	0.0000	4.2549	4.5358
<b>On/Offline</b>	-0.9405	0.1061	-8.8624	0.0000	-1.1485	-0.7325

Appendix 26 Model: 2.3

**Outcome = Entertainment\_AVG**

**OLS Regression Summary**

<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>MSE</b>	<b>F</b>	<b>df1</b>	<b>df2</b>	<b>p-value</b>
0.2457	0.2359	0.4274	50.8091	1	156	0.0000

**Coefficients**

	<b>coeff</b>	<b>se</b>	<b>t</b>	<b>p</b>	<b>LLCI</b>	<b>ULCI</b>
<b>Cons</b>	4.7965	0.0705	68.0355	0.0000	4.6583	4.9347
<b>On/Offline</b>	-0.7444	0.1044	-7.1280	0.0000	-0.9491	-0.5397

Appendix 27 Model: 2.4

**Outcome = Sociality\_AVG**

**OLS Regression Summary**

<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>MSE</b>	<b>F</b>	<b>df1</b>	<b>df2</b>	<b>p-value</b>
0.4313	0.4240	0.5803	118.3125	1	156	0.0000

**Coefficients**

<b>coeff</b>	<b>se</b>	<b>t</b>	<b>p</b>	<b>LLCI</b>	<b>ULCI</b>
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<b>Cons</b>	4.5736	0.0821	55.6761	0.0000	4.4126	4.7346
<b>On/Offline</b>	-1.3236	0.1217	-10.8772	0.0000	-1.5622	-1.0851

Appendix 28 Model: 2.5

**Outcome = Meaningfulness\_AVG**  
**OLS Regression Summary**

<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>MSE</b>	<b>F</b>	<b>df1</b>	<b>df2</b>	<b>p-value</b>
0.6271	0.6097	0.4991	42.3211	6	151	0.0000

**Coefficients**

	<b>coeff</b>	<b>se</b>	<b>t</b>	<b>p</b>	<b>LLCI</b>	<b>ULCI</b>
<b>Cons</b>	-1.1542	0.4335	-2.6624	0.0086	-2.0039	-0.3045
<b>On/Offline</b>	-0.2599	0.1780	-1.4596	0.1465	-0.6088	0.0891
<b>EDU_AVG</b>	0.1494	0.1072	1.3943	0.1653	-0.0606	0.3594
<b>ESC_AVG</b>	0.2218	0.1079	2.0552	0.0416	0.0103	0.4334
<b>EST_AVG</b>	0.2271	0.1393	1.6307	0.1050	-0.0459	0.5002
<b>ENT_AVG</b>	0.5505	0.1971	2.7931	0.0059	0.1642	0.9368
<b>SOC_AVG</b>	0.0921	0.1210	0.7610	0.4479	-0.1451	0.3292

Appendix 29 Model: 2.6

**Direct effect of On/Offline on Q15\_AVG:**

<b>Effect</b>	<b>SE</b>	<b>t</b>	<b>p</b>	<b>LLCI</b>	<b>ULCI</b>
-0.2599	0.1780	-1.4596	0.1465	-0.6088	0.0891

Appendix 30 Model: 2.7

**Indirect effect of On/Offline on Q15\_AVG:**

	<b>Effect</b>	<b>Boot SE</b>	<b>BootLLCI</b>	<b>BootULCI</b>
<b>EDU_AVG</b>	0.0219	0.0265	-0.0085	0.1109
<b>ESC_AVG</b>	-0.0249	0.0352	-0.1214	0.0225
<b>EST_AVG</b>	-0.2136	0.1487	-0.5060	0.0698
<b>ENT_AVG</b>	-0.4098	0.1481	-0.7204	-0.1431
<b>SOC_AVG</b>	-0.1219	0.1584	-0.4229	0.2047

Appendix 31 Model: 2.8

**Outcome = Education\_AVG**  
**OLS Regression Summary**

<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>MSE</b>	<b>F</b>	<b>df1</b>	<b>df2</b>	<b>p-value</b>
0.0128	-0.0004	0.4718	1.9583	1	151	0.1637

**Coefficients**

	<b>coeff</b>	<b>se</b>	<b>t</b>	<b>p</b>	<b>LLCI</b>	<b>ULCI</b>
<b>Cons</b>	3.3976	0.0754	45.0644	0.0000	3.2498	3.5454
<b>On/Offline</b>	0.1560	0.1115	1.3994	0.1637	-0.0625	0.3744

Appendix 32 Model: 3.1

**Outcome = Escapism\_AVG**

### OLS Regression Summary

<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>MSE</b>	<b>F</b>	<b>df1</b>	<b>df2</b>	<b>p-value</b>
0.0076	-0.0056	0.6149	1.1606	1	151	0.2831

### Coefficients

	<b>coeff</b>	<b>se</b>	<b>t</b>	<b>p</b>	<b>LLCI</b>	<b>ULCI</b>
<b>Cons</b>	3.9157	0.0861	45.4921	0.0000	3.7470	4.0844
<b>On/Offline</b>	-0.1371	0.1273	-1.0773	0.2831	-0.3865	0.1123

Appendix 33 Model: 3.2

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### Outcome = Esthetics\_AVG

#### OLS Regression Summary

<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>MSE</b>	<b>F</b>	<b>df1</b>	<b>df2</b>	<b>p-value</b>
0.3547	0.3460	0.4294	82.9821	1	151	0.0000

### Coefficients

	<b>coeff</b>	<b>se</b>	<b>t</b>	<b>p</b>	<b>LLCI</b>	<b>ULCI</b>
<b>Cons</b>	4.4187	0.0719	61.4332	0.0000	4.2777	4.5596
<b>On/Offline</b>	-0.9687	0.1063	-9.1094	0.0000	-1.1771	-0.7603

Appendix 34 Model: 3.3

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### Outcome = Entertainment\_AVG

#### OLS Regression Summary

<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>MSE</b>	<b>F</b>	<b>df1</b>	<b>df2</b>	<b>p-value</b>
0.2603	0.2504	0.4112	53.1371	1	151	0.0000

### Coefficients

	<b>coeff</b>	<b>se</b>	<b>t</b>	<b>p</b>	<b>LLCI</b>	<b>ULCI</b>
<b>Cons</b>	4.8193	0.0704	68.4677	0.0000	4.6813	4.9572
<b>On/Offline</b>	-0.7586	0.1041	-7.2895	0.0000	-0.9625	-0.5546

Appendix 35 Model: 3.4

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### Outcome = Sociality\_AVG

#### OLS Regression Summary

<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>MSE</b>	<b>F</b>	<b>df1</b>	<b>df2</b>	<b>p-value</b>
0.4519	0.4446	0.5437	124.4784	1	151	0.0000

### Coefficients

	<b>coeff</b>	<b>se</b>	<b>t</b>	<b>p</b>	<b>LLCI</b>	<b>ULCI</b>
<b>Cons</b>	4.6064	0.0809	56.9151	0.0000	4.4478	4.7651
<b>On/Offline</b>	-1.3350	0.1197	-11.1570	0.0000	-1.5695	-1.1005

Appendix 36 Model: 3.5

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### Outcome = Willingness to pay

#### OLS Regression Summary

<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>MSE</b>	<b>F</b>	<b>df1</b>	<b>df2</b>	<b>p-value</b>
0.2236	0.1862	7218.1660	7.0094	6	146	0.0000

#### **Coefficients**

	<b>coeff</b>	<b>se</b>	<b>t</b>	<b>p</b>	<b>LLCI</b>	<b>ULCI</b>
<b>Cons</b>	-29.0554	54.5465	-0.5327	0.5951	-135.9645	77.8537
<b>On/Offline</b>	-46.5421	22.3480	-2.0826	0.0390	-90.3433	-2.7409
<b>EDU_AVG</b>	-1.3738	12.9589	-0.1060	0.9157	-26.7728	24.0252
<b>ESC_AVG</b>	17.4521	13.2628	1.3159	0.1903	-8.5426	43.4468
<b>EST_AVG</b>	37.4729	16.9399	2.2121	0.0285	4.2714	70.6745
<b>ENT_AVG</b>	-24.8356	23.8720	-1.0404	0.2999	-71.6239	21.9527
<b>SOC_AVG</b>	5.4772	14.9475	0.3664	0.7146	-23.8194	34.7738

Appendix 37 Model: 3.6

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#### **Direct effect of On/Offline on Q17:**

<b>Effect</b>	<b>SE</b>	<b>t</b>	<b>p</b>	<b>LLCI</b>	<b>ULCI</b>
-46.5421	22.3480	-2.0826	0.0390	-90.3433	-2.7409

Appendix 38 Model: 3.7

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#### **Indirect effect of Unnamed: 53 on Q17:**

	<b>Effect</b>	<b>Boot SE</b>	<b>BootLLCI</b>	<b>BootULCI</b>
<b>EDU_AVG</b>	-0.2143	2.7625	-8.1806	4.1068
<b>ESC_AVG</b>	-2.3925	3.3002	-14.0869	1.3576
<b>EST_AVG</b>	-36.2991	15.1820	-70.4547	-10.0688
<b>ENT_AVG</b>	18.8393	13.0882	-4.4606	49.3339
<b>SOC_AVG</b>	-7.3120	17.9847	-43.7593	26.6164

Appendix 39 Model: 3.8

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